



NAVAL POST GRADUATE SCHOOL PANEL: “Application of an APP Store Software Model within the DoD” Monterey, California



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Why do warfighters need Continuing Innovation?

Ever-Changing Threats &
Environments

Sophisticated
Adversaries with
Jamming Capability

Congested RF Spectrum

Complexity of Interoperability

Leaner Defense Budgets Ahead

Industry & Government Must Balance Agility-Security-Interoperability-Affordability-Competition

“We’re not going to out-Apple Apple, but we need to make sure our workforce is exposed to the same technologies and that we offer them the same technologies....We’ve adopted an app-like approach to developing capabilities because we want our workforce to be able to sit down and say, ‘ This app works for me, that app works for me,’ and then plug and play right in front of them”

-Lonny Anderson
NSA CIO
Spring 2011

Why APPs are important to the military

- ▶ Information presented in a manner that users want to see
- ▶ Speed of building and deploying tools
- ▶ Community comfort with development & use of APPs

US Army “APP Store for War”

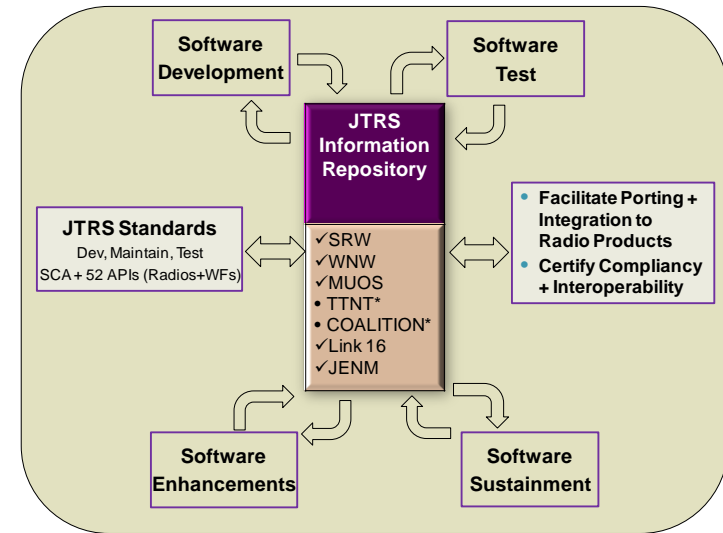
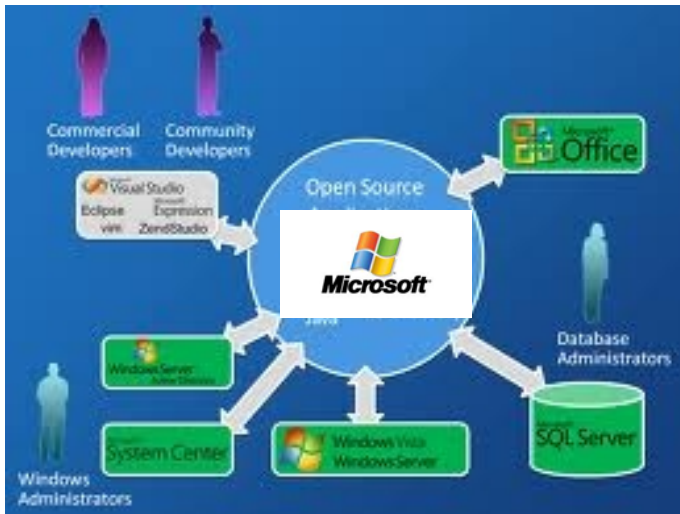


To streamline its operations in a rapidly advancing world, the Army is creating an online app marketplace in the hopes of empowering its soldiers and boosting efficiency.

DoD APPs Requirements

- ▶ An Application Suite
- ▶ Enterprise software
- ▶ Enterprise infrastructure
- ▶ Information worker
- ▶ Content Access
- ▶ Educational
- ▶ Simulation and modeling
- ▶ Media development
- ▶ Product engineering
- ▶ Command & control
- ▶ Intelligence
- ▶ Logistics
- ▶ Administration

Analogy to Commercial IT: Common Software – Multiple Hardware Vendors



Raytheon

NORTHROP GRUMMAN

Rockwell Collins

HARRIS
assuredcommunications[®]

ITT

THALES

SONY

TOSHIBA



SAMSUNG

lenovo

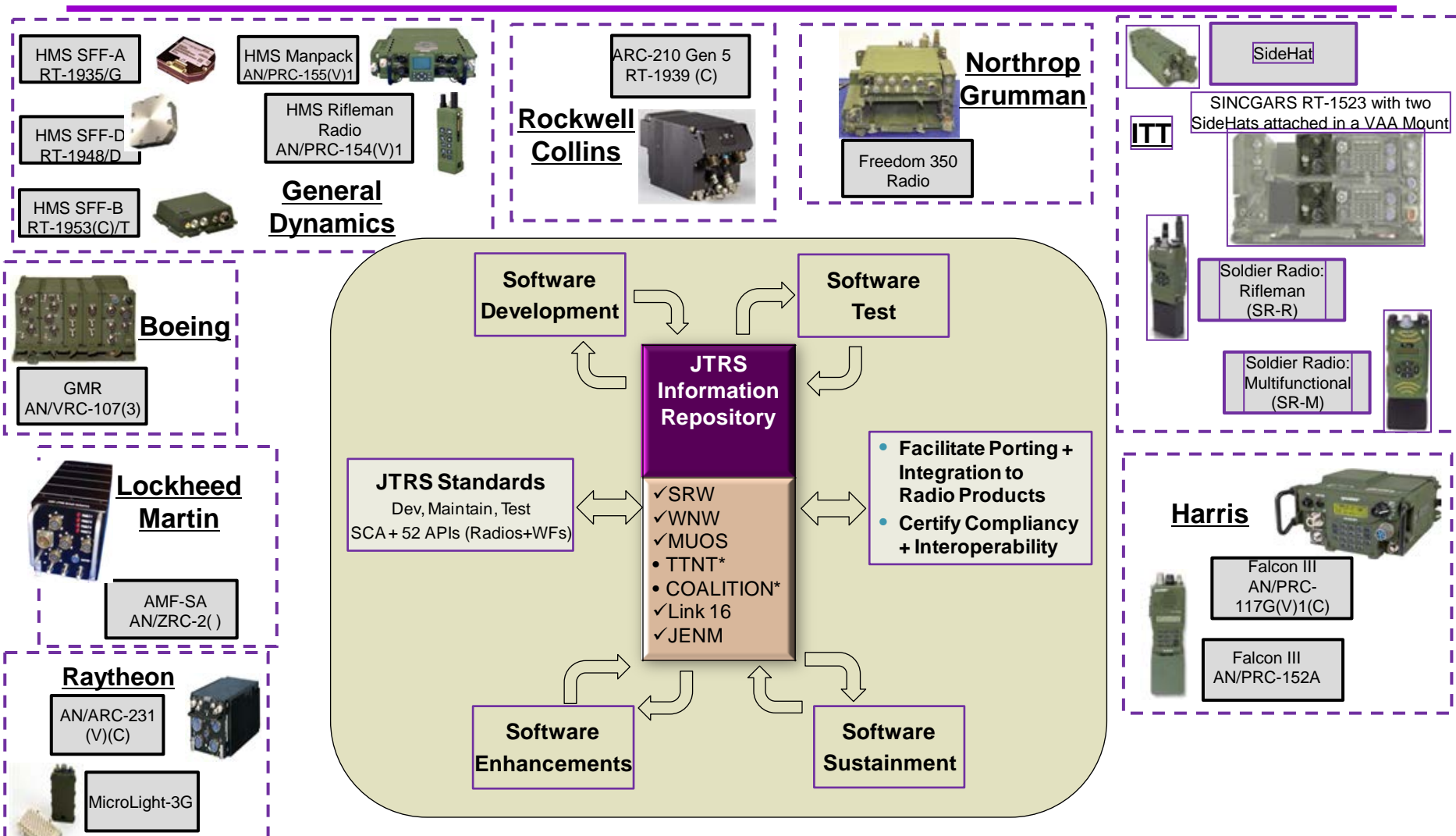


- ✓ Common standards across multiple hardware environments - works across all PCs
- ✓ Developer owned IP rights of software
- ✓ Competition across hardware instantiations
- ✓ Engineered for upgradeability and software enhancements

- ✓ Common software standards across multiple hardware networking radios – interoperable!
- ✓ Government owned IP rights for software
- ✓ Promotes competition across hardware instantiations
- ✓ Engineered for upgradability and software enhancements

Demonstrated Value Today:

Interoperable SRW Network



We are performing these essential tasks today: sustaining joint tactical network applications, conducting quick look interoperability tests, qualifying vendors for major integration test events!

APP Development Hurdles

- ▶ Defined and published standards
- ▶ A mature agile-software tools deployment process
- ▶ A centralized systems engineering compliance and certification authority

Challenges to APP Developers

- ▶ Security
 - No current solution for authenticating applications on secure websites
- ▶ Interoperability in a cognitive (SDR) environment
- ▶ Definition of DoD standards
- ▶ DoD bureaucracy in adopting and deploying in new software
 - Current process long and arduous
 - Not standardized among Services
 - May include an NSA compliance and certification process
- ▶ Licensing and government use issues
- ▶ Cost

Given these challenges...